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*Tabular View of the Industry of the several Arrondissements.*

Arrondissement.	Number of Employers.	Number of Workmen.	Total Number.	Value of Goods Produced.	Value Produced per Head.
				£	£ s.
1st	3,933	21,023	24,956	4,111,700	164 15
2nd	6,459	33,998	40,457	7,106,748	175 13
3rd	4,075	28,256	32,331	5,085,024	157 5
4th	4,181	16,861	21,042	2,894,016	137 10
5th	6,078	45,638	51,716	6,791,099	131 6
6th	10,324	57,988	68,312	9,407,145	137 14
7th	5,971	35,605	41,576	6,155,959	148 1
8th	7,456	43,543	50,999	7,006,559	137 7
9th	3,153	10,273	13,426	1,596,152	118 18
10th	4,134	15,962	20,096	2,828,872	140 15
11th	3,952	15,901	19,853	2,549,435	128 8
12th	5,100	17,482	22,582	3,012,425	133 8
	64,816	342,530	407,346	58,545,134	143 14

*On the Laws of the Currency in Ireland, as exemplified in the changes that have taken place in the Amount of Bank Notes in Circulation in Ireland, since the passing of the Act of 1845.* By J. W. GILBART, Esq., F.R.S.

[Read before the Statistical Section of the British Association, at Belfast, 2nd and 3rd September, 1852.]

#### No. I.

I CANNOT better explain what I mean by the Laws of the Currency in Ireland, than by making two extracts from an article on the Laws of the Currency, published in the "Foreign and Colonial Review," of April, 1844. This article was written by myself, and contains a summary of my own evidence on the subject before the Committee on Banks of Issue, in the year 1841 :—\*

"We will take the monthly returns of the circulation for the period that is past; that is, from September, 1833, to the end of 1843, and endeavour, by observing their various revolutions, to discover if they are governed by any fixed causes or principles—to ascertain if those principles are uniform in their operation; and if we should discover that the revolutions of the currency are regulated by any uniform principles, we shall call those principles the Laws of the Currency.

"From what we have already said of the laws of the currency, those of our readers who are acquainted with Ireland will be able to judge beforehand of the revolutions of her circulation. Being purely an agricultural country, the lowest points will of course be in August or September, immediately before the harvest and the commencement of the cattle and bacon-trade. Then it rises rapidly till it reaches its highest point in January, and then gradually declines. As an agri-

\* A summary of the evidence taken before the Committee has been published by Mr. G. M. Bell.—Longman.

cultural country, we should naturally expect that during the season of increase the circulation would expand most in the rural districts; and so we find that the circulation of the Bank of Ireland, in Dublin, expands very moderately—that of her branches which are located chiefly in large towns expands more—while the circulation of the joint-stock banks which are located in the agricultural districts receives the largest increase. Again, the purchases and sales of agricultural produce are known to be in small amounts; and hence the notes of the smallest denomination receive the largest relative increase. The annual changes of the Irish circulation are governed chiefly by the produce of the harvest and the prices of agricultural products. These are the laws of the circulation of Ireland.”

In the present paper I shall consider the laws of the circulation only so far as they are exemplified in the changes that have taken place in the annual amounts of the notes in circulation in Ireland since the year 1845.

In that year an act was passed for the regulation of bank notes in Ireland. The average amount of notes that had been in circulation during the year ending May 1, 1845 (6,354,494*l.*), was made the fixed or authorised issue. For any amount beyond its authorised issue, each bank was required to hold an equal sum in gold or silver coin, the silver not to exceed one-fourth of the whole. The act came into operation on the 6th December, 1845, and from that period each bank has made returns to the Government, stating the average amount of notes in circulation during the preceding four weeks, distinguishing the notes under 5*l.* from those of 5*l.* and upwards, and giving the amount of gold and silver coin it held in its vaults. These returns are made by all the banks of circulation in Ireland. These are, the Bank of Ireland, the Provincial Bank of Ireland, the National Bank of Ireland, the National Bank of Clonmel, the National Bank of Carrick-on-Suir, and the three banks in Belfast, viz., the Northern Bank, the Belfast Banking Company, and the Ulster Banking Company.

We possess these returns for every four weeks from January, 1846, to the present time. By adding together all the returns made during each year, and then dividing by thirteen, we obtain of course the average amounts in circulation from 1846 to the year 1851, inclusive. I have also added the proportion per cent. which these averages bear to the certified circulation of 6,354,494*l.*

The following are the average amounts in circulation :—

Years.	Average Circulation.	Proportion to Certified Circulation.
1846.....	7,259,948	114·25
1847.....	6,008,833	94·55
1848.....	4,828,992	76·00
1849.....	4,310,283	67·83
1850.....	4,512,444	71·00
1851.....	4,462,909	70·25

From this table it appears that, if the authorised issue be represented by the number 100, the actual circulation for the six years, 1846 to 1851, inclusive, will be represented by the numbers, 114, 94, 76, 67, 71, 70.

The question naturally occurs to us—What is the cause of this great falling-off in the annual circulation since the passing of the act of 1845?

We may premise that this reduction could not be produced by the operation of the act itself. The act does not restrict the amount of notes in circulation; it merely requires, that for all notes issued above a fixed amount, the banks shall hold in their vaults an equal amount of gold. Nor has this reduction been the voluntary act of the bankers. Their profits would have been greater if the circulation had been greater, but they had not the power to keep it up to the authorised amount; and, fortunately for them, the act did not require them to do so. Nor does the amount of notes in circulation correspond with the amount of gold in the Bank of England; for the gold in the Bank of England is, at the present time, much higher than it was on the 1st May 1845, although the Irish notes in circulation are much less. We have here, then, three negative laws of the currency in Ireland—namely, that the amount of notes in circulation in Ireland is not regulated by the Act of Parliament, nor by the wishes of the Irish bankers, nor by the stock of gold in the Bank of England.

As notes are issued in Ireland chiefly for the purpose of purchasing agricultural produce, it would seem to follow that the amount of notes put into circulation, will be regulated mainly by the quantity of that produce, and by the price at which it is purchased. If, then, we find that, in the years since 1845, the quantity of agricultural produce has been less, or the price at which it has been sold has been less, and especially if both these circumstances should have occurred, then have we an adequate cause for a reduction in the amount of bank notes in circulation.

1. The annual productiveness of the harvest would affect the amount of notes in circulation.

We have already noticed the annual averages of the circulation, taking the year according to the calendar, from January to December. We will now take the annual averages, commencing each year from the end of August, which is more properly the agricultural year. By this arrangement we shall be better able to compare the character of the harvest in each year with the amount of notes in circulation. The following are the annual averages, ending with the month of August, and the proportion to the certified circulation:—

	Years.	Average Circulation.	Proportion to Certified Circulation.
	1846 .....	7,192,133	113·18
	1847 .....	6,644,994	104·57
	1848 .....	5,023,442	79·00
	1849 .....	4,433,732	69·77
	1850 .....	4,396,820	69·19
	1851 .....	4,537,304	71·41
	1852 .....	4,528,762	71·26

From the description of the harvests given in the annual reports of the Provincial Bank of Ireland, we learn that the years 1846 and 1848 were disastrous in regard to the produce of the harvest; and we

consequently find, as we should naturally expect, a falling-off in the following years in the circulation of bank notes; but the harvest of 1847 is described as "on the whole a productive one," that of 1849 is "on the whole above an average." In 1850, though the crop of wheat was inferior, "the oat and barley crops were good both in quality and quantity." Yet these productive years did not produce any corresponding advance in the circulation of bank notes. We infer, therefore, that there are other laws or circumstances by which the circulation is governed besides the productiveness of the harvest on the land actually under cultivation.

2. This will lead us to observe, that a bad harvest in one year may, by the distress it produces, cause a less production of commodities in several following years; and hence there may be a less demand for bank notes.

A bad harvest produces distress among the farmers; and this distress affects the amount of circulation in two ways:—First, the farmer consumes his own produce instead of selling it, and thus does not require the use of notes. If his potatoes are destroyed, he will consume his grain. In the Provincial Bank Report of 1846, it is stated that, although the crop of oats was productive and good, a larger portion than usual of the year's crop was believed to be retained for consumption in Ireland, in consequence of the apprehended deficiency in the supply of potatoes. Secondly, the distress of the farmer diminishes the instruments of reproduction. If he has no potatoes he can rear no pigs. An abundant crop of potatoes produces in the following year an abundant crop of pigs, but a famine of potatoes will be followed by a famine of pigs; and hence, the distress of one year may have the effect upon the circulation of notes in several succeeding years. This circumstance is referred to in the Provincial Bank Report of 1850—, "The extensive cultivation of the potato may be considered liable to objection, but it must be remembered that this is the foundation of one branch of the provision trade, which was in former years of great importance to Ireland; and as the stock of pigs, which was so greatly reduced after the failure of the potato crop of 1846, has been again considerably increased during the last two years, it may be hoped that, if there be a good potato crop this year, that important branch of Irish trade may be again established on its former basis."

After the failure of the potato crop in 1846, the exportation of swine was reduced from 480,827 in 1846, to 106,407 in 1847. The potato crop again failed in 1848. The number of swine exported in 1848 was 110,787; in 1849 it was only 68,053.

The destruction of the pigs which took place in 1846 would doubtless affect the circulation of notes in subsequent years, especially in 1847, 1848, and 1849, and probably, also, to a certain extent, in the years 1850 and 1851.

But pigs can be reproduced more rapidly than cattle, as they are more fruitful, and sooner reach maturity. The seasons of famine caused the exportation of cattle in order to obtain food; and thus the means of reproduction in future years were destroyed to a more serious extent. In passing through Connemara a few days ago, a fellow traveller informed me that the mountains we then saw naked had, previous to the famine, been covered with sheep and cattle.

The extent of the distress, and consequent destruction of the instruments of reproduction, was shown in the rapid increase of the poor-rates; and it may be remarked, that the greatest number of persons relieved was in the year 1849—the year that the notes in circulation were at their lowest point of depression.

3. We may also observe, that a reduction in the quantity of commodities produced may be caused by a reduction in the number of producers, and this would occasion a less demand for bank notes.

It appears from the census of 1841 and 1851, that, between these two periods, the population has declined 1,659,330, or at the rate of 20 per cent.; and calculations have been made to show that the whole of this decrease had taken place since the year of the famine, 1846.\* Such a decrease, from whatever cause, must be attended with a decrease in the commodities produced and consumed by those individuals, and will consequently have occasioned a less demand for bank notes to pay for those commodities. If the lands previously occupied by this departed population remain uncultivated, there is a direct decrease in the agricultural produce. Such might be the effect where the occupants died. Emigration might produce an additional effect. The emigrants, before their departure, would change all their bank notes into gold to take with them, and thus would occasion a further reduction of the circulation.

It may be presumed, therefore, that, up to the present time, there has been a large decrease in the produce of the country, and consequently in the circulation of bank notes, from the decrease in the number of its inhabitants. This decrease would probably take place chiefly by deaths in the years 1846 and 1847, and in subsequent years chiefly by emigration. A great stimulus was given to emigration in the year 1845, which has continued to the present time. We may observe, that the year of the greatest emigration, 1849, was the year of the greatest distress, and of the greatest diminution of bank notes in circulation.

This decrease of the population occurred chiefly among those who had but small holdings in land. Their removal, therefore, would effect the circulation in two ways, even supposing the land were subsequently cultivated. Those small cultivators are compelled to bring their produce to market immediately after the harvest, and hence the circulation rises in September and October. From these small holdings, too, the produce is brought to market in small quantities—"each man brings his sack of oats, or two or three pigs, to market;" and hence the circulation, thus occasioned, must consist chiefly of small notes.

4. We may further observe, then, the amount of notes that circulate in a country will also be affected by the quantity of commodities exported, and the quantity imported.

The season in which there is the greatest export of commodities is the season of the highest circulation. But importation withdraws the notes previously in circulation. Were a banker to advance 100% to an exporter, the advance would be made in notes, which would be distributed among the farmers, and remain in circulation till the landlord called for his rent. Were a banker to advance 100% to an

\* See Table I. in the Appendix.

importer, the advance must be made by a draft on England, and he would be repaid by his own notes, withdrawn from circulation in payment for the articles imported. Imports not only do not draw out any of the bankers' notes, but they, moreover, withdraw those which were previously in circulation. When a man imports, say 100*l.* worth of oats, he sell them to the dealers, and the dealers to the consumers. The consumers pay the dealer in notes, which are passed to the importer, who takes them to the bank, and gets for them a bill on London, with which he pays for the oats. The effect of diminished exports and increased imports is referred to in the Reports of the Provincial Bank of Ireland, every year from 1847 to 1851; and Mr. Murray states, in his evidence before the Committee on Commercial Distress, that not only was the amount of notes reduced, but also that of silver.

"When a period of pressure takes place, the silver is forced out of their hands into the hands of the banks, and the account I have delivered to the Committee exhibits that. On the 3rd of January, 1846, there was in the hands of all the banks in Ireland 267,000*l.* in silver; there is at this present moment 501,000 in silver in the hands of all the banks; so that you have to add to the diminished issue of bank notes a diminished amount of silver, in the hands of the general community of Ireland, of nearly 250,000*l.*"

The public returns show that, after the year 1845, the exports from Ireland were largely reduced, especially in the years 1847 and 1849, and in those years, too, occurred the largest importations. These imports were paid for by the capital of the country, and in part by the money of the country.

5. Thus we find that the reduction in the amount of notes in circulation in Ireland has been preceded or accompanied by a reduction in the amount of commodities produced, occasioned by a reduced productiveness in the land actually cultivated, a destruction in the instruments of reproduction by the distress thus occasioned, a reduction in the number of producers by deaths and emigration, and the exportation of an increased portion of its capital in exchange for food. But there is another circumstance that concurs powerfully in producing the same effect—that is, the prices at which the commodities brought to market are sold.

The failure of the crops in Ireland led the late Sir Robert Peel to introduce "An Act to Amend the Laws relating to the Importation of Corn." It is 9 & 10 Vict., cap. 22, and was passed June 26, 1846. A large reduction was made in the duty immediately; and it was enacted that, after the first day of February, 1849, the duty on wheat, barley, oats, &c., should be only 1*s.* per quarter. And, in consequence of the increased distress in Ireland, another act was passed, in January 1847 (9 Vict., cap. 1), to suspend, until the first day of the following September, all the duties on the importation of corn.

In consequence of these acts, large importations took place, and the prices gradually declined.

I have no means of ascertaining the average prices of grain throughout Ireland, but I have obtained from a London corn-merchant the average prices of wheat, barley, and oats, for each year from 1841 to 1851, and taking in each case the prices of the year 1845 as repre-

sented by 100, I have calculated the variations per cent. in the subsequent years.

In the following table the first column represents the variations in the circulation for each year, ending December, as compared with the actual circulation ending December 1845 (6,949,403*l.*) The table assumes, of course, that the changes in the prices of grain in Ireland have corresponded with those that have taken place in England :—

*A Comparative View of the Changes in the Prices of Wheat, Barley, and Oats, and the Circulation for each Year, ending December, from 1845 to 1851, as compared with the Circulation and the Prices of the Year 1845.*

Years.	Circulation.	Wheat.	Barley.	Oats.
1845.....	100·00	100·00	100·00	100·00
1846.....	104·46	107·90	103·40	105·20
1847.....	85·47	136·80	138·70	127·00
1848.....	69·49	99·51	99·47	91·11
1849.....	62·02	87·68	87·63	77·78
1850.....	64·93	79·47	73·95	72·96
1851.....	64·22	76·03	78·15	82·60

On comparing the years 1845 and 1851, we find that the circulation has declined 35·78 per cent., the price of wheat has declined 24 per cent., of barley 21·85 per cent., and of oats 17·40 per cent. If we compare the year 1841 with 1851, the decline of the circulation will only be at a rate of 16·7 per cent., while the price of wheat shows a decline of 40 per cent., of barley 25 per cent., and of oats 17 per cent.

6. Having now taken a view of the circumstances that have regulated the circulation of bank notes in Ireland, we will endeavour to trace the influence they have had respectively upon the circulation of each year from 1845 to 1851. We shall compare each year, not with the certified circulation, ending May 1, 1845 (6,354,494*l.*), but with the actual circulation, ending December 1845 (6,949,403*l.*) We may premise that this standard of measurement is a high standard. The circulation of the four preceding years had been as follows :—

1841.....	£ 5,355,814	1843.....	£ 5,168,585
1842.....	5,114,457	1844.....	5,936,913

The following is the circulation of the succeeding years :—

Years.	Circulation.	Increase on the Preceding Year.	Decrease on the Preceding Year.
1845.....	6,949,403	.....	.....
1846.....	7,259,948	310,545	.....
1847.....	6,008,833	.....	1,251,065
1848.....	4,828,992	.....	1,179,891
1849.....	4,310,283	.....	518,709
1850.....	4,512,444	202,161	.....
1851.....	4,462,909	.....	49,535



1846.—The increase in the circulation this year was owing, doubtless, to the abundant harvest of 1845. It has been observed that good and bad harvests often come in clusters. According to the Reports of the Provincial Bank of Ireland, the four years, ending with 1841, were all remarkable for bad harvests. But in the four succeeding years, from 1842 to 1845, the harvests were abundant; and in each case an increase had taken place in the circulation of notes in the following year, though not to any great amount in the year 1843, owing, possibly, to a fall in the price of wheat and oats.

The failure of the potato crop in 1846 does not appear to have had much effect in diminishing the amount of notes in circulation in that year. But we must recollect that the circulation was sustained by the large expenditure made by Government to relieve the distress.

1847.—The decline of 1,251,065*l.* in this year was, doubtless, owing to the failure of the potatoes in the preceding year. This seems obvious, from the large falling-off in the exportation of swine. It was further diminished by the large importations of food and the increase of emigration. The circulation would probably have fallen still lower, had not an advance taken place in the price of all kinds of grain.

1848.—Another large decrease, of 1,179,891*l.* in the circulation, as compared with the amount of the preceding year. In addition to the causes that continued to operate from the preceding year, this year was remarkable for a bad harvest, and another failure in the potato crop. The poor-rates were more than doubled. Still, the circulation would not have fallen so low, had not a large reduction taken place in the prices of all kinds of agricultural produce.

1849.—A further decline in the circulation (518,709*l.*) The lowest amount of notes in circulation, since the passing of the act of 1845, occurred in the four weeks ending September 8, in this year; it was 2,811,445*l.* The failure of the potato crop in the preceding year was shown this year in a further reduction in the export of swine. In this year, too, occurred a further reduction in the price of grain, a larger increase in the importation of food, a great increase in the number of persons relieved from the poor-rate, and a great stimulus appears to have been given to emigration.

1850.—Although the prices of grain continued to decline, the circulation of notes this year shows an increase of 202,161*l.* upon that of the preceding. The export of swine was increased. The importation of food, though large, was less than in the preceding year, and a large reduction took place in the poor-rates.

1851.—The circulation differs little from that of 1850, only by 49,535*l.*; and the year is marked by similar characteristics, with a still further decline in the poor-rates. The price of wheat was lower than the preceding, but that of oats had advanced.

1852.—With regard to the present year, so far as it has gone, it seems to resemble the last in regard to the total amount of the circulation. Taking the year ending August, the average amount of the circulation in 1852 is nearly the same as that of 1851. But there is a difference in the circulation of the different months. The circulation of 1851 was higher than that of 1852 in the months of January, February, March, and April, but less than 1852 in the months of

May, June, July, and August. This is a favourable indication, and shows that at present the country is in a better state than it was this time last year. During the four weeks ending the 9th August, 1851, the circulation was 3,978,435*l.*; for the same period ending 7th August, 1852, it is 4,396,455*l.*

From the whole, we infer that the difference between the amount of bank notes circulating in a country at two distant periods cannot be regarded as any correct test of the condition of its inhabitants at those periods, unless we take into account all the circumstances by which that difference is attended—that the decline of the circulation of bank notes in Ireland, from the year 1845 to 1851, is no accurate measure of the distress that has existed in the country, or that now exists, as other causes besides distress have concurred in producing that effect—that in comparing the circulation of 1845 and 1851, we are making a comparison unfavourable to the country, as the year 1845 was a year remarkable for the high amount of its circulation—and that we should indulge in no gloomy inferences as to the condition of the country, even if the circulation should never recover its former amount.

I may, indeed, remark, that even the permanent reduction of the circulation to its present amount would be no conclusive evidence of the distressed condition of the country; for though distress first caused the decline of the circulation, yet, from the new circumstances which that distress introduced, the same amount of bank notes are not now necessary for conducting its operations. In confirmation of this opinion, I will quote from the article on the “Laws of the Currency” an extract on the circulation of England:—

“During the last five years there has been a gradual reduction in the annual amount of the country circulation, as appears from the following table, which shows the average amount in each year, from 1839 to 1843, both inclusive.

	£		£
1839.....	11,715,527	1842.....	8,249,052
1840.....	10,457,057	1843.....	7,667,916.
1841.....	9,671,643		

Thus it appears that, since the year 1839, the circulation of the Private and Joint Stock Banks of England has declined to a greater extent than the circulation of Ireland since the year 1841. At present, the authorised circulation of the English banks is only 8,108,062*l.*, and the actual circulation, for the month ending on 12th of June last, was only 6,355,397*l.*,\* and it has been at a much lower amount. Among the causes assigned for this decline in the circulation of the English banks, are the establishment of the penny postage, the introduction of railways, the decline in the price of corn, and the extension of the practice of keeping banking accounts. These causes have also operated in Ireland, while there are other causes, such as the consolidation of small farms, and the cultivation of flax instead of corn, that will tend to produce the same effects. Even increasing prosperity will not always increase the amount of notes in

\* The official Returns for the circulation of bank notes in England, Scotland, and Ireland, are regularly published every month in the “Bankers’ Magazine.”

circulation,—sometimes the reverse. For as nations become wealthy, they learn to economise the currency. Large transactions are settled by cheques on bankers, or bills of exchange, and notes are employed only in making payments of small amount. I cannot here enlarge on these topics. I can only recommend the study of the variations in the circulation of bank notes in Ireland, since the year 1845, as a subject fruitful in illustrations of most important principles, and suggestive of many practical lessons. Here men of business may obtain guidance, men of science may gather wisdom, and statesmen may receive instruction.

*A Table compiled chiefly from "Thom's Statistics of Ireland."*

Years.	Average Circulation of the Year ending December.	Swine Exported from Ireland to Great Britain.	Grain of all kinds Exported from Ireland to England.	Imports into Ireland.	Expenditure from the Poor-Rates.	Number of Persons Relieved from the Poor-Rates.	Number of Emigrants from the United Kingdom.	Number of Emigrants from Irish Ports.	Total Miles of Railway opened on the 1st of January.
	£		Qrs.	£	£				
1845...	6,949,403	...	3,251,901	2,247,098*	316,025	114,205	93,501	23,705	65
1846...	7,259,948	480,827	1,875,393	2,247,098*	455,001	243,933	129,851	38,813	65
1847...	6,008,833	106,407	960,532	8,034,895	803,686	417,139	258,270	95,952	120
1848...	4,828,992	110,787	2,082,841	4,293,978	1,835,634	610,463	248,089	59,701	209
1849...	4,310,283	68,053	1,325,929	6,031,569	2,177,651	932,284	299,498	70,247	361
1850...	4,512,444	109,170	1,298,421	5,208,349	1,430,108	805,702	280,849	51,083	475
1851...	4,462,909	...	...	...	1,110,802	708,450	...	...	537

\* Average of the three years 1844, 1845, and 1846.

## No. II.

[This Paper, is a continuation of the Paper No. I. The Article was divided into two parts, and read before the Association on different days, merely because it was deemed too long for one reading.]

IN my former paper I considered the changes that have taken place in the annual amount of notes that have circulated in Ireland since the passing of the act of 1845. In the present paper I shall consider the monthly variations in the circulation; its division into notes of 5*l.* and upwards, and notes under 5*l.*; its distribution among the different banks, and the amount of gold and silver they respectively hold to meet any demand that may be made upon them for the payment of their notes.

### 1. The monthly changes in the amount of the circulation.

Let us take up the returns, and look at any year we please, and we shall find that all the months vary from each other. Beginning at January, the amount of the circulation usually declines—slowly at first, but more rapidly in May, June, and July, until, by the end of August, we arrive at the lowest point. Then, in September, it begins to ascend, and goes on increasing till January, and then again declines till August.\* Now, let us enquire what are the laws which regulate these monthly variations.

\* See Table II. in the Appendix.

I stated that the annual variations were caused by variations in the quantity and price of agricultural produce. But, as no notes could be put into circulation until this produce is brought to market, the monthly circulation must depend upon the quantity of produce brought to market within the month. Now, it has been the custom in Ireland to commence bringing the produce to market immediately after the harvest. Hence arises the increase of the notes in September, and their further increase in the following months. But, in the beginning of the year the landlords collect their rents, and receive from their tenants the notes for which this produce has been sold; this brings the notes back to the bank, either to be placed to his credit (if he have an account there), or otherwise, in exchange for a letter of credit on Dublin or a bill on London. The circuit of a note, then, is this :—It is obtained from the bank by a corn-merchant, who pays it to a farmer for his corn, which he ships to England. The farmer afterwards pays the note for rent to his landlord, who brings it back to the bank. Every month the bank is issuing and retiring\* notes, but from August to January it issues more than it retires; hence the amount of notes in circulation increases; but from January to August, it retires more notes than it issues, and hence the circulation falls.

The following important evidence, given by Mr. Murray before the Committee on Banks of Issue, in the year 1841, shows in what way the monthly variations in the circulation of notes may indicate the degree of agricultural distress :—

“The condition of the people is vastly improved within the last fifteen years; and, with the permission of the Committee, I will state a substantial instance of that improvement. In 1825, the crop of Ireland, especially that of the south and west, came to market with extreme rapidity after it was cut, and in very bad condition, being altogether thrashed out in the open fields. Stackyards were not to be seen, or rarely so. The markets were filled to overflowing during the months of October, November, and December. In January and February these markets were comparatively thinly attended by the farmers, as the crop was nearly out of their hands. After February, a cargo of wheat or oats could not usually have been collected out of the ordinary markets. The case is now very different. The markets are much less crowded with produce in October, November, and December, and continue equally well supplied in January and February. In March and April, field-labour occupies the farmers, but in May, June, and July, the markets now continue to be well filled where none appeared before, and the corn brought to them in good order; thereby showing that the people are now in a condition to hold over property which they were formerly, from necessity, compelled prematurely to dispose of.”

In the evidence given by myself before the Committee on Banks of Issue in 1841, it was stated that the highest point of the circulation was about January, but since the year 1845, the highest point has usually been in November; thus confirming the statement of

\* The word *retire* is the word usually employed by Scotch and Irish bankers to denote notes *withdrawn* from circulation, either by being lodged on deposit, or paid across the counter, or by some other operation.

Mr. Murray, that in seasons of distress the crops are brought earlier to market.

In the Parliamentary Committees of 1826, the monthly fluctuations in the circulation were advanced as an argument against the abolition of small notes, as in that case the banks would have to import gold from England every September, and return it in the spring, the expense of which they would have to reimburse to themselves by additional charges to the public.

2. Having glanced at the annual and the monthly changes in the circulation, I shall notice another feature suggested to us by these public Returns. We observe that a portion of the circulation consists of notes of 5*l.* and upwards, and another portion of notes under 5*l.*; and it may be useful to inquire if these two classes of notes are subject to the same laws, and whether they rise and fall at the same time, and in exact proportion to each other.

Viewing the monthly circulation, we observe that the small notes, like the large notes, are at their lowest amount about the month of August, and at their highest amount about January. But we observe, also, that, from August, the small notes increase more rapidly than the large ones, and after January they decline more rapidly; so that in every year the proportion of small notes in circulation is greater in January than in August.

In a table that I have compiled for the purpose, it is shown that the small notes bear a higher proportion to the large notes in the month of January than in the month of August.\* Thus, in January 1846, the small notes were 58·94 per cent. of the circulation, but, in August, they were only 54·33 per cent. We may also observe, that those years that have the largest circulation have also the largest proportion of small notes. Thus, in 1846, the respective proportions for January and August are 58·94 and 54·33; but, in the year 1849, the proportions were only, for January, 50·72, and for August, 44·95 per cent. This is an indication that the reduction of circulation had taken place chiefly in the small notes; and this again shows that the distress had fallen chiefly on the smaller cultivators of the soil.

3. Having considered the annual and the monthly fluctuations in the currency, and the relative proportion of small and large notes in circulation, I will now proceed to another topic of inquiry.

It might be useful to know whether the total circulation stated in the Returns before us was distributed equally over the whole surface of Ireland, or distributed unequally, and what are the laws that might produce this unequal distribution.

The Returns before us would seem to afford us but little information on this subject. For, although we have the total circulation of every bank, we have not the separate circulation of each branch, and several of the banks have often branches in the same town.

Still, we may possibly glean some information on the subject, in regard, at least, to one of the four provinces into which Ireland is divided—the province of Ulster.

Viewing the three national banks as one, we have before us the separate circulation of six banks. Three of these banks have their chief office in Dublin—the Bank of Ireland, the Provincial Bank,

\* See Table III. in the Appendix.

and the National Bank; and the other three have their chief office in Belfast—the Northern Banking Company, the Belfast Banking Company, and the Ulster Bank. Now, we may compare these two classes of banks with each other, in regard to their circulation, and we may inquire whether those banks whose circulation is confined to the province of Ulster, have any peculiar features distinct from the other banks; and if so, what is the cause of such peculiarities.

The total number of banks and branches issuing their own notes in Ireland is 163, of which 70 are in the province of Ulster. As the total population of Ireland is 6,515,794, and that of Ulster, 2,004,289,\* the number of banks in Ulster, in proportion to its population, would be fifty.

The following table shows the number of Banks of Issue in the four provinces of Ireland respectively :—

Name of Bank.	Ulster.	Leinster.	Munster.	Connaught.	Total.
Bank of Ireland.....	4	10	6	4	24
Provincial Bank.....	15	7	13	3	38
National Banks.....	1	13	25	9	48
Belfast Banks .....	50	3	....	....	53
Totals....	70	33	44	16	163

It may be observed that the circulation of the Belfast banks include a much larger proportion of small notes than is contained in the circulation of the other banks. To show this, it will be sufficient to analyse the last Monthly Return.† Upon the total circulation of all the banks, the proportion of small notes is 49·39 per cent.; upon that of the Bank of Ireland, 34·78 per cent.; of the Provincial Bank, 58·82 per cent.; of the National Banks, 59·93 per cent.; and of the Belfast Banks, 86·55 per cent.

We may inquire—What is the reason that the banks of Ulster should have so large a proportionate circulation of small notes? In the evidence given, in the year 1826, before the Parliamentary Committees appointed to consider the propriety of abolishing small notes in Ireland, witnesses from Ulster had stated that small notes were necessary for the purposes of the linen manufacture. Mr. J. A. Smith, a linen-merchant, and agent for the Belfast Bank at Londonderry, stated to the Committee :—

“In Lancashire, I believe, all the raw materials are bought in large quantities, and by bills. In Ireland, the raw material is all bought in small parcels, and all in small notes. In Lancashire, there is only cash wanted to pay the workmen, but we want it both to pay the workmen and to buy the raw material. I am in the habit of employing my linen-buyers to go to the country markets, and I must supply them with a week’s money before they start, perhaps five hundred or a thousand pounds. They have to go through the interior

\* Table I. in the Appendix.

† Table V. in the Appendix.

of the country, and do not return for a week. They make all the purchases in small quantities, and it is more convenient for them to carry notes than gold."

But, since that period, the operations of the linen trade have undergone a considerable change; and, as now conducted, they have not, I believe, much influence on the note circulation. On this subject I may quote a letter I have received in reply to my inquiries. It is well known to the inhabitants of Ulster that formerly notes were in circulation for twenty-five, thirty, and thirty-one shillings; these were abolished by the Act of 1845:

"A very considerable change has taken place in the linen trade since 1826. At that time, and for some years subsequent, it was the practice for the merchants to make all their purchases from the weavers direct, in the open market. The weaver bought his own yarn, wove it, and brought it in the web to be sold as soon as it was woven. Now it is quite different. There is a sort of middleman, whom we term a manufacturer. He supplies the yarn to the weaver, pays him for the weaving, and sells to the merchant. The smaller class of manufacturers, who may have from two to ten webs, sell in the open market still; but the merchant, instead of having as many persons to pay as there were webs to pay for, has comparatively few. The larger class of manufacturers, some of whom will have upwards of a thousand looms at work, bring in large quantities of cloth, which they dispose of in their warehouses. The quantity sold in Armagh market weekly in these ways is not under 10,000 pieces, which is probably treble the quantity brought in twenty years ago. The average value of the above quantity may be about 7,000*l*. As far as the linen trade is concerned, the circulation of bank notes must be greatly diminished. I should have mentioned that the average value of the cloth manufactured in the North of Ireland is much less by the piece than it was; first, from the cheapness of the yarn, and, secondly, from the quality of the cloth generally being of a coarser kind. In former days, the value of the webs sold in this market was from 25*s*. to 35*s*., now it is under a pound. The fractional notes, for the purposes of the linen trade, are, therefore, not missed; and as the payments, except for the wages of weaving, are generally for considerable amounts, and every man in trade now-a-days having his banker, every transaction is settled by a cheque. The wages of the weaver are paid exclusively with silver, and a much larger quantity of it is now required. All this must of course lessen the circulation of small notes, and, indeed, of the paper currency generally, and we have never had a gold currency. There is also a great change in the yarn trade. Formerly a large portion of the yarn used was hand-spun, now it is almost exclusively mill-spun.

"The flax trade is more extensive than ever it was; and so far as it and the pork trade are concerned, a small-note currency is as much required as formerly; and in these trades, probably, the fractional notes are missed; but there are no complaints, now that the traders have become used to the want of them."

During the season of depression, the circulation of the Belfast banks (viewing the three banks as one) was depressed lower than that of either of the other banks. Thus the certified circulation of all the

Belfast banks, as compared with the certified circulation of all the banks, is in the proportion of 13·15 per cent. But the actual circulation of the Belfast banks, in the year 1847, was only 11·93 per cent. of the total actual circulation. In 1848 it was only 11·82 per cent., and in 1849 it was 12·89 per cent. Afterwards it recovered. In 1850 it was 13·44 per cent., in 1851 it was 14·92 per cent., and in 1852, 16·61 per cent., being greater than its proportion of the certified calculation. It is known that the manufactures of Ulster are rapidly increasing; but, as I have already observed, manufacturing and commercial transactions of large individual amount do not put into circulation a proportionate amount of bank notes, such transactions being usually settled by cheques or by bills of exchange. At the same time, it will be observed that, during the last three years, the circulation of the Belfast banks has considerably increased.

*Table showing the Proportional Circulation of each Bank, as compared with the whole Circulation of all the Banks, for the following Years, ending August:—*

	Bank of Ireland.	Provincial Bank.	National Banks.	Belfast Banks.	Total.
Authorised circulation, year ending May, 1845 .....	58·84	14·60	13·41	13·15	100
Actual circulation for the year ending Aug. 1847....	58·14	15·63	14·30	11·93	100
Actual circulation for the year ending Aug. 1848....	59·87	15·48	12·83	11·82	100
Actual circulation for the year ending Aug. 1849....	59·37	14·83	12·91	12·89	100
Actual circulation for the year ending Aug. 1850....	58·49	14·36	13·71	13·44	100
Actual circulation for the year ending Aug. 1851....	56·32	14·20	14·56	14·92	100
Actual circulation for the year ending Aug. 1852....	54·34	14·13	14·92	16·61	100

4. I have one feature more to notice in these Returns—that is, the amount of gold and silver kept by the banks, in order to meet the payment of their notes.

For several years past, the Act of 1845 has not required the Irish banks to keep any amount of gold or silver, for they have always been below the authorised circulation; but another act, passed in the year



1828, through the influence of Mr Spring Rice—now Lord Montecagle—requires that all notes should be payable in gold on demand at the place of issue. The gold and silver kept by the banks have only been to the amount that they deemed necessary and prudent for the purposes of business.

*Table showing the Proportionate Amount per Cent. of Gold and Silver, as compared with the Circulation of Notes, kept by the respective Banks during the following Years, ending August :—*

Years.	All the Banks.	Bank of Ireland.	Provincial Bank.	National Banks.	Belfast Banks.
1847....	31·44	25·28	41·77	35·97	42·42
1848....	31·73	25·22	47·59	38·54	36·49
1849....	36·62	30·08	52·17	43·00	42·55
1850....	33·75	27·95	47·88	39·59	37·93
1851 ...	29·05	24·27	38·71	34·24	32·87
1852....	26·21	22·40	35·68	26·65	30·23

We observe from this table that the annual average amount of gold and silver kept by all the banks has varied from 29 to 36 per cent. We observe, too, that in the years when the circulation has been low, the amount of gold and silver has been higher in proportion than in those years when the circulation has been high. Taking the average of years from 1847 to 1851, the *lowest* amount of gold, in proportion to its circulation, has been kept by the Bank of Ireland. The proportion varies from 24 per cent. in 1851, to 30 per cent. in 1849. The highest proportion has been kept by the Provincial Bank. It has varied from 38 per cent. in 1851, to 52 per cent. in 1849. We may also state that, in the monthly variations, the lower the circulation, the higher the proportionate amount of gold and silver. This arises, it may be presumed, from the circumstance that the banks do not vary the amount of their gold and silver with every variation of the circulation. The proportion of silver to gold kept by all the banks has varied from 20 to 33 per cent., but the proportion varies very much with different banks.\*

The amount of gold necessary to be kept against any given amount of notes in circulation, is purely a question of management, and depends upon a variety of circumstances. The degree of public confidence the bank may have acquired, the excitable character of the population, the state of commercial credit, the facility of obtaining supplies, and the rapidity of communication with its branches, are all to be taken into calculation by a prudent banker. Gold can now be so readily obtained from England by means of steam-boats, and distributed throughout Ireland by means of railways, that so large an amount may not be so necessary as formerly. The railways and the

\* See Table IV. in the Appendix.

electric telegraph are useful to bankers, and present another instance of the utility of scientific discoveries to men of business.

5. I shall conclude this paper by inquiring in what way will the recent discovery of gold in California and Australia practically effect the operations of the banks in Ireland.

These banks now obtain a low rate of interest on that portion of their funds which they employ in London.

So long as fresh importations of gold take place in London, and the Bank of England shall be compelled by law to purchase all the gold imported, so long will the rate of interest be low in the London money-market. For the notes issued in the purchase of this gold is thrown at first into the hands of the London bankers or money-dealers, and its abundance, in proportion to the demand, reduces the rate of interest at which it is lent. As the Irish banks keep their reserves in London, they must, in order to have securities at all times available, be content to take this low rate of interest. But there are several circumstances which would lead us to suppose that the banks will be disposed to diminish their funds in London, as far as prudently they may, and to employ a larger portion in making advances in Ireland.

The abundance of money in England, and the low rate of interest that can be obtained for it there, will naturally have a tendency to drive it for employment to Ireland. New associations will probably be formed to constitute public works, such as railways, &c., in Ireland, or to carry on those branches of manufacture or commerce that can advantageously be carried on by public companies. These associations, by the capital they bring into the country, by the new operations they may introduce, by the confidence they may infuse, and even by the occasional advances they may need, will be useful to the banks and to the country.

The circumstances of Ireland, too, are favourable to this further employment of capital in Ireland. The Encumbered Estates Bill has broken down large estates, and placed them in the hands of parties who are in a condition to improve them. Large land proprietors, who are nominally in possession of great estates, which are mortgaged for more than they are worth, are not desirable customers to a bank, nor are pauper cultivators, who are always behind in their rents; but the cultivators of moderate sized estates, which they have purchased by the results of previous industry, and who have skill and prudence to cultivate them with advantage, are parties to whom banks may advance additional capital, with advantage to themselves and to the country. This is the class that forms "a nation's pride;" and to this class the banks of Ireland may in the spirit, if not in the form of the cash-credit system, make such advances as shall produce in Ireland the same beneficial effects which that system has produced in Scotland.

Another circumstance is favourable to the advance of capital by the banks. From the extent of emigration, many instances must have occurred of small farms being united and constituting large ones. The occupiers of these large farms will be a superior class of people, and more worthy of credit and confidence. A banker may readily and prudently grant assistance to the occupier of a large farm, formed

of ten small farms, though he could not prudently give assistance to any one of the ten by whom the small farms were cultivated.

The state and condition of the banks of Ireland are favourable to their efficiency in promoting the prosperity of the country.

The history of banking proves that it is better for a country to have a small number of large banks than a large number of small banks. The latter case has never been a natural production, but has been the result of injudicious legislation. The banks in Ireland are sufficiently strong to command public confidence, and have the means of increasing their capital, and extending their branches. They are numerous enough to prevent monopoly, and yet few enough to be protected against the spirit of excessive competition. No new bank of issue can be formed. Though this prohibition is, as we conceive, a violation of a sound general principle, yet it is one of those practical enactments which seem to show that, in political economy, some of its general principles, or, as they are called, abstract principles, admit occasionally of beneficial exceptions. This law serves to prevent the formation of weak banks, which might inflict on the country the evils of excessive competition; and as in the case of the Agricultural Bank of 1836, might weaken public confidence in better establishments. A strong confidence in its banking institutions, as in Scotland, is the growth of generations; and, when justified by the character of the banks themselves, is a powerful cause of national prosperity. Banks thus situated, having no reason to be anxious about their own safety, can, in seasons of distress, employ the whole of their resources to alleviate the public calamity.

From all these circumstances, we are led to believe that we may expect in future years a high degree of prosperity for Ireland, arising from the administration of her banking institutions.\*

\* Upon the Act of 1845, for the Regulation of Banks in Ireland, we may observe:—

1. The authorised issue is like that of the banks of Scotland, the average amount of the year ending on the 1st day of May, 1845.

2. If any two banks unite, the new bank may issue to the amount of the circulation of both the united banks. Here the law is the same as that of Scotland, but different from that of England.

3. If any bank gives up its issue, and agrees to issue Bank of Ireland notes, the Bank of Ireland may increase her authorised issue to the full amount of the issue of the bank whose notes are withdrawn. In England, the Bank of England can, in a similar case, issue only to the extent of two-thirds of the issue of the bank whose notes are withdrawn. There is no similar provision in the Act referring to Scotland.

4. Another difference may be noticed between Ireland and Scotland. All the notes issued at the branch-banks in Scotland are payable only at the head-office of the bank that issued them. In Ireland, all the notes are legally demandable in gold at the branches where they have been issued. Hence the banks in Ireland must keep some gold at every branch, while the banks in Scotland need not have any gold except at the head-office. In both countries the banks must hold a stock of gold equal to the amount of notes in circulation beyond the authorised issue; and according to the Act, this gold must be at the head-office, or chief place of issue. In the Provincial Bank of Ireland, these places are Cork, Limerick, Dublin, and Belfast.—*Gilbart's Practical Treatise on Banking*, vol. ii. p. 608.

## APPENDIX.

TABLE I.

*The Population of Ireland in 1841 and 1851.*

Provinces.	1841.	1851.	Decrease.
Ulster .....	2,386,373	2,004,289	382,084
Leinster .....	1,973,731	1,667,771	305,960
Munster .....	2,396,161	1,831,817	564,344
Connaught .....	1,418,859	1,011,917	406,942
Totals....	8,175,124	6,515,794	1,659,330

TABLE II.

*Showing the Proportionate Circulation of each Bank, as compared with their Authorised Circulation, in January and August in each Year.*

Name of Bank.	1846.		1847.		1848.		1849.	
	Jan.	Aug.	Jan.	Aug.	Jan.	Aug.	Jan.	Aug.
All the Banks ....	116·4	101·9	118·3	80·20	81·78	67·88	73·56	60·32
Bank of Ireland	116·3	103·7	112·7	83·12	82·64	70·60	72·70	62·61
Provincial Bank	124·4	111·3	129·3	83·09	86·83	69·48	77·67	59·20
National Banks	105·2	95·87	127·7	81·59	76·53	62·51	70·73	57·02
Belfast Banks ....	119·8	90·15	121·7	62·67	77·69	59·43	75·81	54·66

Name of Bank.	1850.		1851.		1852.	
	Jan.	Aug.	Jan.	Aug.	Jan.	Aug.
All the Banks .....	73·50	64·18	75·26	62·61	73·66	69·19
Bank of Ireland .....	71·99	65·30	70·78	61·68	66·46	66·90
Provincial Bank .....	72·36	61·38	74·14	58·56	71·83	65·79
National Banks .....	74·72	65·77	81·64	64·80	81·58	74·38
Belfast Banks .....	80·24	60·65	90·05	68·98	99·76	77·88

TABLE III.

*Showing the Proportion of Large and Small Notes Circulating in January and August in each of the following Years :—*

	Date.	Large.	Small.	Total.
	1846, January.....	41·06	58·94	100
	„ August .....	45·67	54·33	100
	1847, January.....	41·93	58·07	100
	„ August .....	52·39	47·61	100
	1848, January.....	48·17	51·83	100
	„ August .....	54·79	45·21	100
	1849, January.....	49·28	50·72	100
	„ August .....	55·05	44·95	100
	1850, January.....	47·28	52·72	100
	„ August .....	52·20	47·80	100
	1851, January.....	45·48	54·52	100
	„ August .....	50·63	49·37	100
	1852, January.....	43·73	56·27	100
	„ August .....	50·61	49·39	100

TABLE IV.

*Proportion of Gold to Silver held by each Bank during the Years ending December, 1847 to 1851.*

Name of Bank.	1847.		1848.		1849.		1850.		1851.	
	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.	Gold.	Silver.
All the Banks ...	79·60	20·40	66·45	33·55	67·67	32·33	70·88	29·12	74·83	25·17
Bank of Ireland...	82·85	17·15	62·17	37·83	63·51	36·49	69·16	30·84	72·54	27·46
Provincial Bank...	78·39	21·61	69·73	30·27	68·05	31·95	70·50	29·50	75·50	24·50
National Banks...	75·32	24·08	67·30	32·70	76·81	23·19	72·59	27·41	74·88	25·12
Belfast Banks ...	76·03	23·97	74·80	25·20	71·35	28·65	75·01	24·99	80·40	19·60

TABLE V.

*Statement of Circulation and Stocks of Specie of Banks of Issue in Ireland, for the Four Weeks ending August 7th, 1852.*

Banks.	Certified Issue.	£5 and upwards.	Under £5.	Total.	Gold.	Silver.	Total.
	£	£	£	£	£	£	£
Bank of Ireland .....	3,738,428	1,632,500	868,500	2,501,000	419,817	155,801	575,618
Provincial Bank .....	927,667	251,380	358,976	610,356	174,712	56,359	231,071
Belfast Bank .....	381,611	40,286	224,262	264,548	101,361	41,643	143,004
Northern Bank .....	243,440	22,045	143,770	165,815	40,290	14,980	55,270
Ulster Bank.....	311,079	25,267	195,591	220,858	43,954	6,700	50,654
National Bank.....	761,757	237,446	357,372	594,818	113,818	46,258	160,076
Do. Carrick-on-Suir .....	24,084	4,717	7,087	11,805	3,144	905	4,049
Do. Clonmel .....	66,428	11,842	15,413	27,255	5,396	1,535	6,931
Totals .....	6,354,494	2,225,483	2,170,971	4,396,455	902,492	324,181	1,226,673